Seattle presentation

SLIDES

INFORMATION SYSTEMS	OUTSOURCING	TITLE.	
MS -13	OU-20		
MS-6	OU-21		
MS -7	-30		
	-36		
	-37		
	-38		
	-39		
I-1	SI-1	SI-113	SO-73
-2	-2	-115.	-74.
-9	-33	-133	-76 original
-8	-34	-134	-77.
-11	-35	AD-14	-84.
		-45	-161.
		I -115	-94.
OU-6	-49	SO-1	-97.
OU-2	-50.	SO-10	-111
OU-3	-91	-147	-112.
OU-4	-92	-148.	-117.
OU-5	-93.	-11.	-118
~~OU-6~~	-69	-12	-126
OU-7	-70	-17	-127
OU-9.	SI-75.	-25	-141.
IS-2	-82	-152	
WM-16	-84.	-153	
OU-10	-101	-154.	
OU-11	SI-104	-43	
OU-12	-105.	-44	
~~OU-17~~	-109	-45	
-18	-106.	-46	
-19			

I-40
-41
-32
OU-17.
SC-14

- Introduction
- Information Systems Trends
- "Outsourcing"
- Information Services Markets
- Competition
- Conclusion

INPUT

MS-13

Notes

© 1990 by INPUT. Reproduction Prohibited.

INPUT

Market Research and Consultancy

Information Services Industry

15 Years in Business

100 Employees

MS-6

INPUT

Notes

© 1990 by INPUT. Reproduction Prohibited.

INPUT

California, New York, Washington D.C.,
London, Paris, Tokyo

Primary Research Emphasis

Senior Executives Experienced in
Information Services

Forecast from Comprehensive Data Base

INPUT

MS-7

Notes

© 1990 by INPUT. Reproduction Prohibited.

Information Systems

INPUT

I- 1

Notes

© 1990 by INPUT. Reproduction Prohibited.

Fundamental Driving Forces

Key Business Trends:

- Shorter product life cycles
- More customization/specialization
- Narrower market segments
- Higher impact of technology
- More competition from overseas vendors

INPUT

I- 2

Notes

© 1990 by INPUT. Reproduction Prohibited.

IS Trends

- IS to reduce costs
- IS for competitive advantage
- Mission-critical systems
- Inter-enterprise systems
- Integrated customer-oriented systems

INPUT

I- 9

Notes

© 1990 by INPUT. Reproduction Prohibited.

Where's the Productivity?

INPUT

I- 8

Notes

© 1990 by INPUT. Reproduction Prohibited.

Make vs. Buy

INPUT

I-11

Notes

© 1990 by INPUT. Reproduction Prohibited.

Outsourcing is the contracting of information systems (IS) functions to external vendors.

INPUT

OU-6

Notes

© 1990 by INPUT. Reproduction Prohibited.

Beyond Products: Service-Based Strategy

HBR March/April 1990

INPUT

OU-2

Notes

© 1990 by INPUT. Reproduction Prohibited.

Key Findings

- Value added from services
- Technology enhances services
- Services enable competitive differentiation

Source: HBR Article

INPUT

OU-3

Notes

© 1990 by INPUT. Reproduction Prohibited.

Recommendations

- Focus on core services
- Outsource other activities

Source: HBR Article

INPUT

OU-4

Notes

© 1990 by INPUT. Reproduction Prohibited.

Outsourcing

- Outsource non-competitive activities
- Outsourcing builds flexibility
- Outsourcing allows focus

Source: HBR Article

INPUT

OU-5

Notes

© 1990 by INPUT. Reproduction Prohibited.

IS Outsourcing Areas

1. Development
2. Operation and maintenance

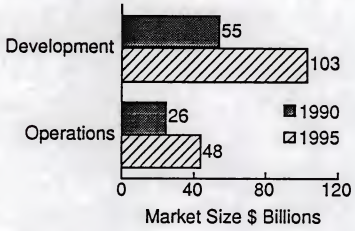
INPUT

OU-7

Notes

© 1990 by INPUT. Reproduction Prohibited.

U.S. IS Outsourcing Markets, 1990-1995



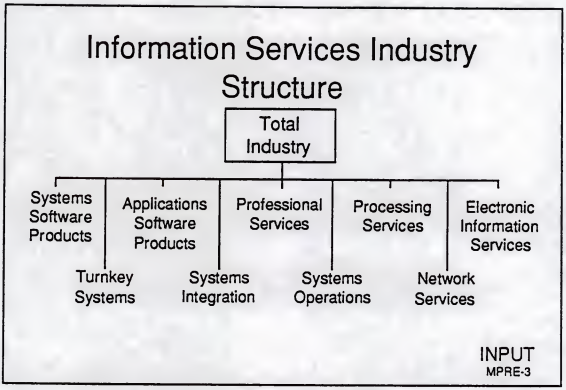
INPUT

OU-9

Notes

rev. 11/20/90

© 1990 by INPUT. Reproduction Prohibited.



Notes

© 1990 by INPUT. Reproduction Prohibited.

Information Services Market Penetration Worldwide

	Expenditures ($ Billions)	
	1989	1994
Information Systems	840	1,420
Information Services*	170	380
Penetration	20%	27%

* Less electronic information services

INPUT
MPRE-186

Notes

WM-16

© 1990 by INPUT. Reproduction Prohibited.

"Outsourcing" vs. Buying Services

1980s: Services achieved recognition

1990s: Overcome prejudice against buying management services

INPUT

OU-10

Notes

© 1990 by INPUT. Reproduction Prohibited.

"Outsourcing" vs. Buying Services

- Greater commitment on part of buyer
- "Partnership"
- Responsibility/risk for vendors

INPUT

OU-11

Notes

© 1990 by INPUT. Reproduction Prohibited.

Focus

Systems integration (SI)

Systems operations (SO)

INPUT

OU-12

Notes

© 1990 by INPUT. Reproduction Prohibited.

Evolution of Outsourcing

Type of Product or Service	1970s		1990s
Applications Software	Applications Packages	→	Applications Management
Professional Services	Consulting Contract Prog	→	Systems Integration
Processing Services	Specific Proc Serv	→	Systems Operations

INPUT

OU-18

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Outsourcing in the 1990s
What is Different

- Size and length of commitment
- Breadth of responsibility assumed by vendor
- Partnership versus supplier/subcontractor

OU-19

INPUT

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Outsourcing in the 1990s
What is Different

- Complexity of IT solutions
- Professional services component
- Systems management

INPUT

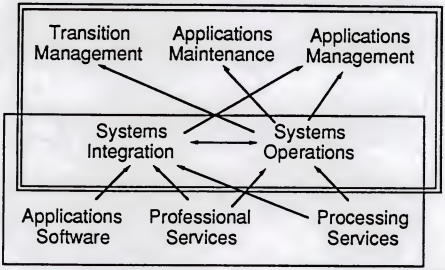
OU-20

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Systems Management Opportunities



INPUT

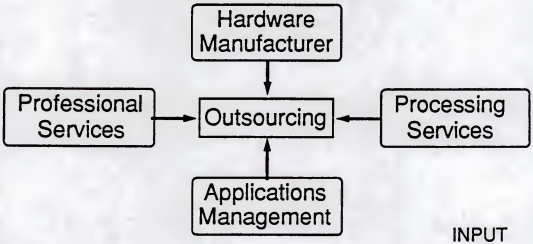
OU-21

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Vendor Orientation to Outsourcing



INPUT

OU-30

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Organizational Impacts

Group	Impacts
Total Organization	No visible impact Reallocation of personnel Faster access to skills More disciplined implementation

INPUT

OU-36

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Organizational Impacts

Group	Impacts
Information Systems Management	Manage a smaller organization Shift to tactics and strategy Time available for planning

INPUT

OU-37

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Organizational Impacts

Group	Impacts
Information Systems Professional	Significant initial anxiety Greater career opportunities

INPUT

OU-38

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Conclusions
User View

- Outsourcing is different for the 1990s
- Outsourcing offers new opportunities
- Outsourcing can lead to faster response
- Outsourcing can help IS change its role

OU-39

INPUT

Notes

12/13/90

© 1990 by INPUT. Reproduction Prohibited.

Systems Integration

SI- 1

INPUT

Notes

© 1990 by INPUT. Reproduction Prohibited.

SI Definition

- Vendor-provided service
- Complete solution to complex requirement for:
  - Information systems
  - Networking
  - Automation
- Custom selection and implementation of products and services

SI- 2

INPUT

Notes

rev. 11/20/90

© 1990 by INPUT. Reproduction Prohibited.

SI Characteristics

- Vendor responsibility
- Vendor risk assumption
- Solutions requirement

SI-33

INPUT

Notes

© 1990 by INPUT. Reproduction Prohibited.

SI Market Factors

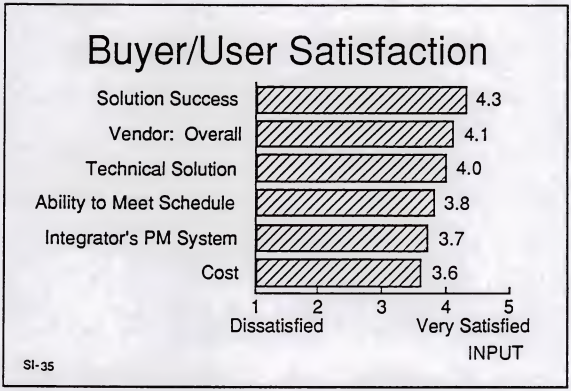
- Demand for connectivity
- Major infrastructure rebuilding
- User management trend
- Application complexity

SI-34

INPUT

Notes

© 1990 by INPUT. Reproduction Prohibited.



Notes

© 1990 by INPUT. Reproduction Prohibited.

Major Vendor Issues—1990

- Increasing competition
  - Skills
  - Clients
- Full service suppliers
  - "Business change" consulting
  - Systems operations

INPUT

SI-49

Notes

rev. 11/27/90

© 1990 by INPUT. Reproduction Prohibited.

Major Vendor Issues—1990

- Investment in repeatable solutions
  - Risk reduction
  - Productivity
- Consolidations and alliances

INPUT

SI-50

Notes

© 1990 by INPUT. Reproduction Prohibited.

Recent SI Contracts

Vendor	Client
DEC	Nissan - production management
	Canada - Treasury Board
EDS	Florida - Human Services
	Chicago - Parking Authority

SI-91

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Recent SI Contracts

Vendor	Client
Andersen	Boeing - Document processing
	Texas - Accounting
IBM	Burroughs Wellcome - Plant automation
	Rockwell Automotive - Production control

SI-92

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Recent SI Contracts

Vendor	Client
Perot	McGraw-Hill - Publishing system
SHL Systemhouse	Los Angeles - Court system

SI-93

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Trends

- SI Market Drivers
  - Customer business needs
  - Technology application
  - Personnel constraints
  - Vendor profit/channels

INPUT

SI-69

Notes

© 1990 by INPUT. Reproduction Prohibited.

Trends

- Buyer Emphasis
  - Users becoming buyers
  - Interest in solutions, not technology
  - Preference for industry knowledge
  - Project management key
  - Acceptance by performance

SI-70

INPUT

Notes

© 1990 by INPUT. Reproduction Prohibited.

Network Integration

A Growing Opportunity

SI-75

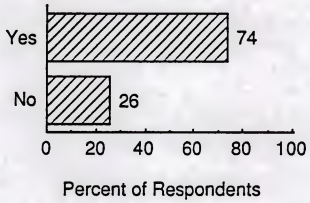
INPUT

Notes

11/20/90

© 1990 by INPUT. Reproduction Prohibited.

Network Integration Users Planned Projects



INPUT

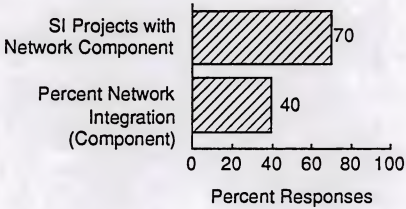
SI-82

Notes

11/20/90

© 1990 by INPUT. Reproduction Prohibited.

Network Portion of Systems Integration Projects



INPUT

SI-84

Notes

11/20/90

© 1990 by INPUT. Reproduction Prohibited.

Network Integration Leading Vendors*

- IBM
- AT&T
- DEC
- Novell
- 3Com

* User perception

SI-101

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Computer-Integrated Manufacturing and Systems Integration

SI-104

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Forces Driving Change in Manufacturing Companies

- Global market
- Increased competition
- Technology
- Core business focus

INPUT

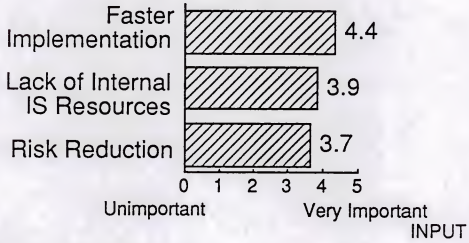
SI-105

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Reasons for Using a CIM Integrator



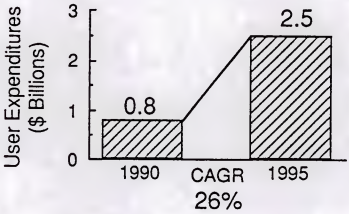
SI-109

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

CIM Systems Integration Market, 1990-1995



SI-106

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Systems Integration Electronic Imaging Market

SI-113

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

SI Electronic Image Justification

Reason	Rank
Improved customer service	1
Improved records management	2
Personnel savings	3
Media storage savings	4
Space savings	5

INPUT

SI-115

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Imaging Systems Integrators

Vendor	Percent User Responses
Andersen Consulting	62
TRW	39
Integrated Automation	31

SI-133

INPUT

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

Imaging Systems Integrators

Vendor	Percent User Responses
IBM	23
AMS	23
Wang	23
EDS	23

INPUT

SI-134

Notes

1/21/91

© 1991 by INPUT. Reproduction Prohibited.

CASE—User Perspective

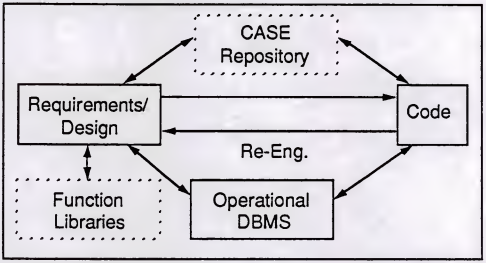
- Real productivity problem
- Backlog problem continues
- Lingering resistance to disciplined development processes

INPUT
MPRE-68a

Notes

© 1990 by INPUT. Reproduction Prohibited.

Emerging CASE Environment



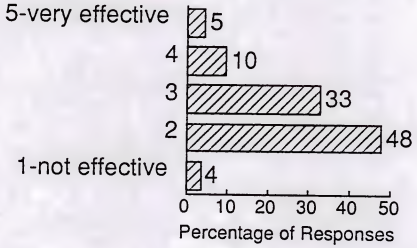
Development Management

INPUT

Notes

© 1990 by INPUT. Reproduction Prohibited.

Effectiveness of CASE



I-115

INPUT

Notes

2/7/91

© 1991 by INPUT. Reproduction Prohibited.

Systems Operations

INPUT

SO- 1

Notes

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Driving Forces

- Core business focus
- Business transition
- Expense reduction
- Capital preservation

INPUT

SO-10

Notes

rev. 11/26/90

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Driving Forces

- Increasing complexity of operations
- Scarcity and expense of required talents
- Costs and problems of systems upgrades

INPUT

SO-147

Notes

2/6/91

© 1991 by INPUT. Reproduction Prohibited.

Systems Operations Driving Forces

- Service level requirements
- Backup requirements

INPUT

SO-148

Notes

2/6/91

© 1991 by INPUT. Reproduction Prohibited.

Systems Operations Driving Forces

- Systems integration creates opportunities
- Reduction of costs through sharing
  - People
  - Software
  - Computer systems
  - Networks

INPUT

SO-11

Notes

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations and Competitive Advantage

- Operations advantages hard to achieve
- Avoidance of operations disadvantages imperative
- Advantage/disadvantage comes from applications

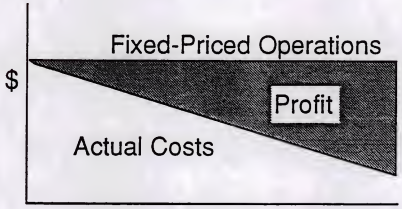
INPUT

SO-12

Notes

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Efficiency Yields Profits



INPUT

SO-17

Notes

© 1990 by INPUT. Reproduction Prohibited.

Leading U.S. SO Vendors

Vendor	Market Share (Percent)
EDS	16
CSC	5
Systematics	3
Affiliated Computing	2
SMS	2
SIAC	2
BCS	2

INPUT

SO- 25

Notes

rev. 11/26/90

© 1990 by INPUT. Reproduction Prohibited.

Recent SO Contracts

Vendor	Client
Andersen Consulting	Sun, Maxus Energy Corp.
EDS	Columbia Pictures, First Fidelity Bancorp, Cummins Engine, National Rental

INPUT

SO-152

Notes

2/6/91

© 1991 by INPUT. Reproduction Prohibited.

Recent SO Contracts

Vendor	Client
IBM	Kodak, Bank South, First Tennessee Bank
Digital	Kodak, Treasury Board of Canada
Systematics	Regional Banks

INPUT

SO-153

Notes

2/6/91

© 1991 by INPUT. Reproduction Prohibited.

Recent SO Contracts

Vendor	Client
Perot	American Medical International, NCNB
CSC	National Oceanic & Atmospheric Admin., U.S. Postal Service

INPUT

SO-154

Notes

2/5/91

© 1991 by INPUT. Reproduction Prohibited.

Systems Operations Buyers' Initial Evaluation Criteria

Ranking	Criteria
1	Better or more-flexible service
2	Availability of operations skills internally
3	Lower operating expenses
4	Faster application changes
5	Data security/privacy
6	Faster new application development

INPUT

SO-43

Notes

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Buyers' Initial Evaluation Criteria

Ranking	Criteria
7	Ability to add/delete personnel
8	Reduced capital investment requirements
9	Mission-critical application
10	Near-term cash flow improvements
11	Labor relations/unions
12	Executive time commitment

INPUT

SO-44

Notes

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Vendor Selection Criteria—Buyers' View

Ranking	Criteria
1	Vendor SO experience
2	Overall cost
3	Data security and protection
4	SO performed by prime SI contractor
5	Vendor-provided hardware and systems software maintenance
6	Application software maintenance

INPUT

SO-45

Notes

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Vendor Selection Criteria—Buyers' View

Ranking	Criteria
7	Reduced capital investment
8	Near-term cash flow improvements
9	SO performed in client facility
10	Labor relations/unions
11	SO performed in vendor location

INPUT

SO-46

Notes

© 1990 by INPUT. Reproduction Prohibited.

SO Definition

Contracting for all or a major portion of an IS operation on a long-term (more than one year) basis

INPUT

SO-73

Notes

© 1990 by INPUT. Reproduction Prohibited.

Types of SO

- Platform (utility) systems operations
  - Network
  - Computers
- Applications systems operations

INPUT

SO-74

Notes

© 1990 by INPUT. Reproduction Prohibited.

Perceived SO Inhibitors

- Cost
- Employee loyalty
- Vendor employee turnover
- Loss of control
- Acceptance by user community

INPUT

SO-76

Notes

© 1990 by INPUT. Reproduction Prohibited.

SO Vendor Issues

- Account control
- Potential conflicts of interest
- Profit maximization vs. performance

INPUT

SO-77

Notes

© 1990 by INPUT. Reproduction Prohibited.

Network Operations Management

1990-1995

SO-84

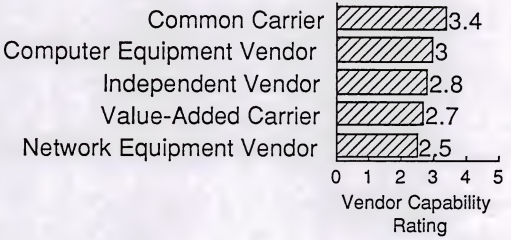
INPUT

Notes

11/9/90

© 1990 by INPUT. Reproduction Prohibited.

Few Vendors Can Meet User Needs



INPUT

SO-161

Notes

2/6/91

© 1991 by INPUT. Reproduction Prohibited.

Primary Reasons for Contracting

- Private organizations
  - Business focus
  - Financial savings

SO-94

INPUT

Notes

11/9/90

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Inhibitors

- Savings uncertainty
- Personnel concerns
- Loss of control
- Service quality
- Organizational threats

SO-97

INPUT

Notes

11/26/90

© 1990 by INPUT. Reproduction Prohibited.

SO Growth Factors
(Users' Viewpoint)

- Business
  - Financial/economic incentives
  - Increased core business focus
  - Better management of change
  - Management frustration with operations

SO-111

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

SO Growth Factors
(Users' Viewpoint)

- Technology
  - Need for improved reliability
  - Changing technology
  - Trend toward "lights out" operations

SO-112

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

Staffing Changes

- Went from 300 to 5 people (bank)
- Staff changed from 64 to 36 (govt. agy.)
- Took staff from 70 to 0 (ret. dist.)

SO-117

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

Personnel Transfer Policies

- Guaranteed employment term with vendor
- Transfer employment and benefits

SO-118

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Benefits
(Users' Viewpoint)

- Business
  - Cost reduction/savings
  - Increased business focus
  - Improved career path
  - Predictability

SO-126

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

Systems Operations Benefits
(Users' Viewpoint)

- Technology
  - Access to better technology
  - Improved service quality
  - Improved reliability

SO-127

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

Vendor Strategies

- Buy client assets
- Invest in client business
- Hire client staff
- Global networks add flexibility
- Project managers critical

SO-141

INPUT

Notes

12/11/90

© 1990 by INPUT. Reproduction Prohibited.

Evolution of CIO Role

- Role will not disappear
- Same objectives/problems
- More focus on strategy/planning
- Less focus on systems development/operations
- Stronger focus on telecom/network

INPUT

I- 40

Notes

© 1990 by INPUT. Reproduction Prohibited.

Information Systems Executive Role in the 1990s

An Internal "Systems Integrator"

INPUT

I- 41

Notes

© 1990 by INPUT. Reproduction Prohibited.

Corporate Organization

- IT and IS will change the organization
- How will it operate?
- People
  - How many?
  - When?
  - What skills?

INPUT

I- 32

Notes

© 1990 by INPUT. Reproduction Prohibited.

Potential for revolution is there.

Forecasts are based on evolution.

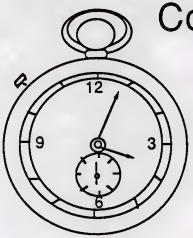
INPUT

OU-17

Notes

© 1990 by INPUT. Reproduction Prohibited.

Conclusions



"Time—
The next source of
competitive advantage"

- HBR July/August 1988

- Attack opportunities
- Adjust to the requirements

INPUT

SC-14

Notes

© 1990 by INPUT. Reproduction Prohibited.